NATURAL RESOURCES CONSERVATION SERVICE
CONSERVATION PRACTICE STANDARD

UPLAND WILDLIFE HABITAT MANAGEMENT

(Acre)

Code 645

TEXAS SUPPLEMENT, ZONE 1

RIO GRANDE WILD TURKEY

HABITAT REQUIREMENTS

COVER

Rio Grande wild turkey require several different types of cover. These include roosting, nesting and brood rearing, loafing, screening and escape cover. Riparian areas in the Rolling Plains are very important in meeting many of these cover requirements. Riparian areas are more productive and generally have a wider variety of quality vegetation. Proper management of these riparian areas is a key element in providing quality turkey habitat.

High quality roost sites are stands of cottonwood in riparian areas and established shelterbelts. Turkeys will also roost in isolated mature upland trees and even may use man-made structures such as utility poles, windmill towers or tank batteries.

High quality nesting cover consists of tall grasses and forbs and often includes low brush. As the amount of available nesting habitat increases, nesting and brooding rearing success increases because predators will find it more difficult to locate and destroy nests and catch poults. Sites that have little bluestem, sand bluestem, switchgrass, sand sagebrush, shinnery oak and plum thickets are valuable for nesting and brooding rearing.

Areas that provide overhead concealment and good visibility are preferred brood rearing habitat. This include plum thickets, western soapberry motts and areas of mixed grass and other shrub species. These areas should contain nutritive herbaceous plants that support insects and allow poults to forage and provide escape cover from predators.

Turkeys spend the day traveling, feeding and loafing and need brush or taller grasses and forbs to screen them from predators. Moderate brush densities on rangeland will provide needed screening and escape cover.

FOOD

Rio Grande wild turkey have a varied diet. All ages eat insects when they are available. Peak use of insects is during the summer and early fall. Grasses are used throughout the year. Grasses of importance are bristlegrass, rescuegrass and wheat. Other cultivated crops utilized are alfalfa and grain sorghum. Seeds, fruits and tubers of forbs such as silverleaf nightshade, crotons, ground cherry and filaree are utilized during spring and summer months. Woody plants such as tasajillo, bumelia, skunkbush sumac, hackberry, western soapberry, mesquite and prickly pear are utilized from fall through spring. Refer to Table 1 for a more complete list of plants that are valuable as turkey food.

WATER

Rio Grande wild turkey water daily, utilizing natural sources of water, but will also readily use livestock water facilities.

HABITAT ARRANGEMENT

Rio Grande turkey are very mobile and daily movements may range from 1 to 2 miles and cover up to 1000 acres. Feeding areas may be some distance from water and roost sites if there are brushy travel corridors or areas of taller vegetation that provide screening cover. Hens with poults need a closer arrangement of food,

cover and water. In general, habitat arrangement is adequate if half or more of the landscape is in woody cover and the remainder in small to moderate sized openings (up to 160 acres) with a permanent water source every mile. Riparian areas are a key component of the habitat as they provide roost sites, water and lush vegetation.

HABITAT SIZE

Rio Grande wild turkey home range may cover 10 to 20 miles between winter and summer ranges. This can include up to 10,000 acres. Landscapes that contain a mixture of the necessary habitat components may support turkey better than a larger area that lacks one or more of the needed habitat components.

HABITAT MANAGEMENT TECHNIQUES

COVER

Roost sites are key components of turkey habitat. These areas must be protected and receive proper management. Riparian areas that contain cottonwoods and other taller trees should be left intact when planning and conducting brush management. Established shelterbelts can also provide roost sites and should be protected during brush management. The brushy understory beneath and adjacent to roost sites should also be protected during brush management. A buffer of about ¼ mile should be undisturbed around roost sites. If juniper species or invasive species such as Russian olive are present, in the riparian area, they should be controlled.

Brush management on upland sites should leave at least 50 per cent of the habitat in moderately thick brush that includes trees as well as understory brush. This will provide as adequate interspersion of loafing, feeding and escape cover.

Grazing systems must be planned and applied so they protect riparian areas, provide nesting cover and brood-rearing habitat. Riparian areas should be fenced as separate pastures. Riparian areas should have only light grazing and be regularly deferred during periods of the growing season each year. Riparian areas may need several years of complete rest to develop acceptable plant communities. Livestock should not be wintered on riparian areas. The upland sites should have light to moderate grazing and be provided regular rest during the growing season. The goal should be to have a grazing system that provides nesting and brood rearing cover about 18" in height and proper protection of riparian areas. This may include long rest periods or even areas of no grazing for extended periods. It is well to remember that present nesting and brood rearing cover can get to thick for both adults and poults. This may require some moderate grazing or even burning to correct.

FOOD

Rio Grande wild turkey food supplies can be maintained or improved by management that favors plant diversity. Refer to Table 1 for important turkey food plants. Plant diversity will also support an abundance and variety of insects. Light to moderate grazing is the key to plant diversity while heavy grazing discourages plant diversity and damages important food plants.

Rotational grazing systems are needed for best seed and fruit production. Rest periods of 120 to 180 days are better than rest periods of 90 or less days.

Brush management should be applied so as to leave the most desirable mast and fruit producing food plants. Refer to Table 1. Brush management by individual plant treatment (chemical or grubbing) works best over broadcast or other indiscriminate methods.

Rio Grande wild turkey habitat responds to mosaic prescribed burns. Late winter or early spring burns favors warm season grass species over forb species. Early winter burns favor cool season grasses and forbs. All burns should be carried out using an approved burn plan and by experienced personnel. Always protect roost sites when burning.

Cropland can be utilized to increase turkey food sources. Grain crops can be planned in the crop rotation or outer edges of fields can be planted to grain crops. Refer to Table 2 for important cultivated species. Eight to 12 rows can be left unharvested around field edges to provide additional food later into the year. Leave grain residues on the soil surface until April 1 each year to maximize availability.

Food plots may increase food supplies if planned, planted and managed properly. Refer to Table 2 for important species. The food plots should be located close to cover, roost sites and water. The plots need proper seedbed preparation and planting and weeds may need to be controlled. Fertilization may be required to achieve acceptable results. The plots must be protected from livestock. They generally should be 10 to 20 acres in size and located every mile. Food plots will not make up for poor habitat but may supplement good habitat.

Supplemental feeding is not considered a habitat management practice. It will not make up for poor habitat. It can attract and hold turkeys during certain periods of the year. A pelleted commercial turkey ration, corn, grain sorghum or wheat can be feed. An elevated platform feeder works best. Grain with aflatoxin greater than 20 ppb should not be used because turkey are especially susceptible to this toxin.

WATER

Turkey will use creeks, springs, ponds and livestock watering facilities. Ground level water is more desirable than constructed livestock watering facilities. A constructed earthen depression that utilizes windmill overflow and protected from livestock is ideal. When livestock are removed from a pasture the windmill should be leave operating to provide turkey water.

Refer to Wildlife Watering Facility standard, Code 648, for selected designs for furnishing water for turkey.

REFERENCES

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APPROVAL

/s/ Gary Valentine
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TABLE ONE

RIO GRANDE WILD TURKEY
IMPORTANT NATIVE AND NATURALIZED FOOD PLANTS

WOODY PLANTS

Pricklypear
Tasajillo
Hackberry
Bumelia
Sand Plum
Mesquite
Western Soapberry
Juniper Species
Agarita
Ephedra
Lotebush
Skunkbush Sumac
Littleleaf Sumac
Grape
Balsamgourd

GRASSES

Texas Wintergrass
Western Wheatgrass
Indiangrass
Switchgrass
Eastern Gamagrass
Johnsongrass*
Rescuegrass*
Little Barley*
Japanese Brome*
Sideoats Grama
Vine-mesquite
Plains Bristlegrass
Hooded Windmillgrass
Tobosagrass

CULTIVATED CROPS

Wheat
Grain Sorghum
Alfalfa
Cowpeas

FORBS

Giant Ragweed
Crotons
Illinois Bundleflower
Erect Dayflower
Spiderwort
Silverleaf Nightshade
Ground Cherry
Spurges
Bladderpod
Wild Onion
Filaree
Gaura
Winecup
Annual Sunflower
Pigweed
Lambquarter*
Kochia*
Oxalis

* Indicates non-native species that have become naturalized

TABLE TW0

Planting Information for Commercially Available Seed

Used for Food Plots To Enhance Rio Grande Turkey Food Supply

	Seed Rate Lbs/Acre [1]					
	Broadcast or Drilled	Rows [2]	Planting Dates	Planting Depth In.	Minimum Rainfall [3]	Comments
Perennials [4]						
Illinois Bundleflower (W)	13.6	4.5	12/1 - 5/31	¼ - ½	18	
Indiangrass (W)	4.5	1.5	12/1 - 5/31	¼ - ½	20	Good nest cover
Switchgrass, Alamo (W)	2.0	1.0	12/1 - 5/31	¼ - ½	22	Good nest cover
Switchgrass, Blackwell (W)	3.5	1.0	12/1-5/31	¼ -1/2	18	Good nest cover
Alfalfa [5](CW)	4.0	1.5	9/1 - 4/15	¼ - ½	18	short-lived (4 - 8 yr)
Plains Bristlegrass (W)	3.0	1.0	12/1 – 5/31	¼ - 1/2	16	
Skunkbush Sumac (W)	17.8	6.2	12/1 – 5/31	¼ - 1/2	16	
Warm Season Annuals						
Grain Sorghum	12.0	4.0	5/1 - 6/30	1 - 2	18	
Pearl Millet	10.0	3.0	5/1 – 6/30	½ - 1	18	
Cowpeas	15.0	5.0	5/1 – 6/30	1 - 2	18	
Cool Season Annuals						
Wheat	60.0	20.0	9/1 - 11/15	1 - 2	18	more cold hardy
Rye	60.0	20.0	9/1 – 11/15	1 - 2	20	
Yellow Sweetclover	3.4	NR	9/1 – 11/15	¼ -1/2	18	Biennial “Madrid”
Hairy Vetch	26.0	9.0	9/1 – 11/15	1 - 2	20	

Footnotes:

1 Seeding rates based on PLS when available, otherwise, use good quality commercial seed.

2 Row planting (20 - 40 inch rows) should be used only when weed control will be carried out between rows. NR - Row planting not normally recommended.

3 Approximate annual rainfall zone recommended for successful establishment. Irrigation recommended when planting west of this line.

4 (W) – warm season forage production. (C) – cool season forage production. (CW) – provides some forage during both cool and warm season.

5 All legumes should be inoculated with the proper strain of Rhizobium for best production.